

Name: _____

Date: _____

Calculus Review Quarter 4 Test 2

Mr. Callahan

This is some review. Be sure to study your class notes and examples as well!!

Topics:

- Area Between Curves
- Length of an Arc

1. Find the area between $f(x) = x^2 - 1$ and the x-axis on the interval $[0,2]$
2. Find the area bound by $f(x) = \sin x$ and $g(x) = x^2$
3. Find the length of the curve given by the function $y = 2x^{3/2} - 1$ on the interval $[0,1]$.
4. What is the length of $g(x) = x^{3/2}$ on the interval $[0,1]$?
5. Find the length of $y = \frac{2}{3}(x^2 + 1)^{3/2}$ from $x = 1$ to $x = 4$.
6. What is the area between $f(x) = 2x^2 - 8x + 10$ and $g(x) = \frac{1}{2}x^2 - 2x - 1$ on the interval $[1,3]$.
7. Find the area bounded by $y = \frac{-x^3}{2} + 2x^2$ and $y = -x^2 + 4x$.
8. What is the area bounded by $f(x) = \frac{x^2}{2} - 3x - \frac{1}{2}$ and $g(x) = 3$?